

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A process for the preparation of benzaldehyde comprising:
 - (i) subjecting toluene to liquid phase oxidation in a reaction mixture comprising:
 - (a) an organic solvent and in the presence of ;
 - (b) a catalyst system comprising of at least one transition metal/metals and a bromide source as a promoter; and in the presence of
 - (c) diluted oxygen, wherein the concentration of oxygen is in the range from 1 to 10% of the reaction mixture,
 - (ii) cooling the reaction mixture to room temperature and
 - (iii) separating the products benzaldehyde.
2. (Currently Amended) A The process as claimed in claim 1 wherein the products benzaldehyde is separated by distillation.
3. (Currently Amended) A The process as claimed in claim 1 wherein the transitional metal is selected from the group consisting of manganese, chromium, iron, vanadium, cobalt, molybdenum, and any a combination thereof.
4. (Currently Amended) A The process as claimed in claim 3 wherein the transition metal catalyst comprises a combination of manganese and iron ~~or manganese and vanadium~~.
5. (Currently Amended) A The process as claimed in claim 4 wherein the mole ratio of manganese to iron ~~or manganese to vanadium~~ is in the range from 0.1 to 10.
6. (Currently Amended) A The process as claimed in claim 5 wherein the mole ratio of manganese to iron ~~or manganese to vanadium~~ is in the range from 0.2 to 5.0.

7. (Currently Amended) A The process as claimed in claim 1 wherein the transitional metal is ~~used in the form of~~ a salt selected from the group consisting of acetates, bromides, carbonates, fluoride, iodides, chlorides, nitrates, sulfates and vanadates.

8. (Currently Amended) A The process as claimed in claim 7 wherein the transitional metal is a salt selected from the group consisting of acetates, chlorides and vanadates.

9. (Currently Amended) A The process as claimed in claim 1 wherein the bromide promoter is selected from the group consisting of sodium bromide, hydrogen bromide and zinc bromide.

10. (Currently Amended) A The process as claimed in claim 1 wherein the bromide promoter comprises sodium bromide.

11. (Currently Amended) A The process as claimed in claim 3 wherein the concentration of manganese with respect to toluene is in the range of 0.1 - 7 mol %.

12. (Currently Amended) A The process as claimed in claim 3 wherein the concentration of manganese with respect to toluene is in the range of 0.3 - 5.0 mol %.

13. (Currently Amended) A The process as claimed in claim 3 wherein the concentration of iron ~~or vanadium~~ with respect to toluene is in the range of 0.1 - 5 mol %.

14. (Currently Amended) A The process as claimed in claim 3 wherein the concentration of iron ~~or vanadium~~ with respect to toluene is in the range of 0.3 - 4.0 mol %.

15. (Currently Amended) A The process as claimed in claim 3 wherein the concentration of bromine with respect to toluene is in the range of 0.05 - 5.0 mol %.

16. (Currently Amended) A The process as claimed in claim 3 wherein the concentration of bromine with respect to toluene is in the range of 0.1 - 3.0 mol %.

17. (Currently Amended) A The process as claimed in claim 1 wherein the organic solvent ~~comprises~~ is selected from the group consisting of an aliphatic acid or and an aromatic organic acid, or a combination thereof.

18. (Currently Amended) A The process as claimed in claim 1 wherein the organic solvent is selected from the group consisting of acetic acid, benzoic acid and propionic acid.

19. (Currently Amended) A The process as claimed in claim 1 wherein the organic solvent comprises acetic acid.

20. (Canceled)

21. (Currently Amended) A The process as claimed in claim 1 wherein the concentration of oxygen is in the range of 2-7% in nitrogen.

22. (Currently Amended) A The process as claimed in claim 1 wherein the reaction is carried out at a temperature in the range of 70° - 180° C and pressure in the range of 1-80 bar.

23. (Currently Amended) A The process as claimed in claim 1 wherein the reaction is carried out at a temperature in the range of 90° - 160° C and pressure in the range of 20-70 bar.

24. (Currently Amended) A The process as claimed in claim 1 wherein the selectivity to benzaldehyde obtained is in the range of 60-75% and benzoic acid and benzyl alcohol are obtained as side products.

25. (New) The process as claimed in claim 3 wherein the transition metal catalyst comprises a combination of manganese and vanadium.

26. (New) The process as claimed in claim 25 wherein the mole ratio of manganese to vanadium is in the range from 0.1 to 10.

27. (New) The process as claimed in claim 26 wherein the mole ratio of manganese to vanadium is in the range from 0.2 to 5.0.

28. (New) The process as claimed in claim 3 wherein the concentration of vanadium with respect to toluene is in the range of 0.1 - 5 mol %.

29. (New) The process as claimed in claim 3 wherein the concentration vanadium with respect to toluene is in the range of 0.3 - 4.0 mol %.